Applicant : Rikihiro Iida   Attorney's Docket No.: 10830-054001 / A36-
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Although a single prior art reference may, in appropriate circumstances, render a claim obvious, there must be showing of a suggestion or motivation to modify the teachings of that reference to the claimed invention in order to support the conclusion of obviousness. *In re Kotzab*, 217 F.3d 1365, 1370 (Fed. Cir. 2000) (reversing conclusion of obviousness).

A single line in a reference may not be taken out of context and relied upon with the benefit of hindsight to show obviousness. *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 443, 448 (Fed. Cir. 1986). Similarly, boilerplate statements in a prior art reference that other embodiments and the like can be used are generally insufficiently specific to support a finding of obviousness. *See, e.g., Fromsom v. Anitec Printing Plates, Inc.*, 132 F.3d 1437, 1447 (Fed. Cir. 1997). Moreover, the mere fact that the prior art reference <u>could be</u> modified does not satisfy the requirements for a finding of obviousness. *In re Laskowski*, 871 F.2d 115, 117 (Fed. Cir. 1989); *In re Mills*, 916 F.2d 680, 682 (Fed. Cir. 1990). Instead, the suggestion or motivation to modify the prior art must be "clear and particular." *See, e.g., C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1352, (Fed. Cir. 1998); *Teleflex, Inc. v. Ficosa North Am. Corp.*, 299 F.3d 1313 (Fed. Cir. 2002). As explained by the Court of Appeals for the Federal Circuit:

> While the test for establishing an implicit teaching, motivation, or suggestion is what the combination of [ ] two statements of [the prior art reference] would have suggested to those of ordinary skill in the art, the two statements *cannot be viewed in the abstract*. Rather, they must be considered *in the context of the teaching of the entire reference*. Further, a rejection cannot be predicated on the mere identification in [the prior art reference] of individual components of claimed limitations. Rather, particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed.

In re Kotzab, 217 F.3d at 1371 (emphasis added).

The requirement of a clear and particular suggestion or motivation prevents the use of improper hindsight based, for example, on the applicant's own disclosure as a blueprint for forming a faulty obviousness argument. *See, e.g., In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998); *Ecolochem, Inc. v. Southern California Edison Co.*, 56 USPQ2d 1065, 1072-73 (Fed. Cir. 2000).

The pending claims

The pending claims relate to controlling (1) the output level of the laser and (2) the temperature of the laser.

As part of the process, calculations are made of:

(i) an approximate temperature based on set values of wavelength and output level,

(ii) an output level variation based on the approximate temperature,

(iii) a value based on the output level variation and the set value of the output level, and

(iv) a set temperature based on the calculated value in (iii) and the set wavelength value.

The value in (iii) is used to control the output level of the laser. The set temperature in (iv) is used to control the temperature of the laser.

The cited references

The Kuo et al. patent discloses a temperature control block 13 to control the temperature of the laser diode. That patent also discloses a current control block 14 to control the forward bias current of the laser diode.

The techniques described in that patent apparently allow the bias current and temperature to be determined for variations of power and wavelength (col. 6, lines 22-24). In particular, equation (10) at col. 5, line 18, may be solved to determine the temperature change ΔT for a desired output power change (col. 5, lines 21-22). Then, equation (9) may be solved to

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determine the driving current change ΔI for a desired frequency/wavelength change (col. 5, lines 23-24).

In contrast, however, to the subject matter of the pending claims, solving equations (9) and (10) of the Kuo et al. patent does not involve making calculations (i) through (iv) listed above. Instead, as described by the Kuo et al. patent:

> The calculations are done using the parameters P_o, η_o, ν_o, I_{tho} <u>provided by the manufacturer.</u> T_o^* and T_1^* as well as α_i, α_t, β_i were <u>determined empirically</u> from a statistically significant sample of laser modules.

(Col. 5, lines 25-28) (Emphasis added) In other words, according to the Kuo et al. patent, the temperature and output level of a laser diode involve the calculations in equations (9) and (10); it does not involve the additional calculations recited in pending claims 1-3. The calculations recited in the pending claims simply are not disclosed or suggested by the Kuo et al. patent.

The Office action's suggestion that the Kuo et al. patent "inherently" discloses those calculations also is incorrect because an argument that a particular feature is "inherent" requires that the feature "necessarily" is present. *Trintec Indus., Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292 (Fed. Cir. 2002) ("Inherent anticipation requires that the missing descriptive material is 'necessarily present,' not merely probably present or possibly present, in the prior art."). That is not the situation here.

The Broutin '077 patent discloses a temperature control device 120 to control the temperature of a laser. A processor 160 provides a bias control signal.

As noted by the Examiner, the Broutin et al. patent states that the processor may form the control signals "based on a variety of conventional algorithms." The details of such algorithms, however, are not disclosed by the Broutin '077 patent. In particular, there is absolutely no disclosure or suggestion in the Broutin '077 patent that the processor 160 performs the particular calculations recited in the pending claims. The fact that the processor 160 might be "capable" of performing such calculations (as suggested at page 6 of the Office action) is irrelevant.

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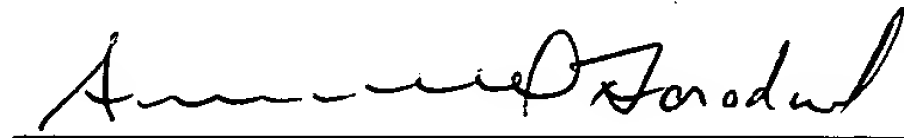
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The Office action seems to suggest that the Broutin '077 patent's disclosure of some overall similar functions is sufficient to anticipate (or render obvious) the claimed subject matter. The Office action, however, fails to point out precisely how the each and every feature of the pending claims, including the various calculations, are disclosed or suggested by the Broutin '077 patent. The Office action's citation of *In re Aller* (at page 5) is misplaced because the invention of the present application does not claim merely the "optimum or workable ranges" of operation. Instead, the claims recite the particular calculations set forth above.

In view of the foregoing remarks, applicant respectfully requests reconsideration and withdrawal of the rejections.

Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

Date:___2/24/2005_____

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